REMARKS

Entry of the foregoing and favorable consideration and examination of the subject application, as amended, pursuant to and consistent with 37 C.F.R. Section 1.112, and in light of the remarks which follow, are respectfully requested.

A substitute specification is submitted herewith, pursuant to 37 C.F.R. 1.125(a). The attached substitute specification does not contain new matter. The text of the attached substitute specification is double-spaced, as called for in the letter of September 17, 2001.

The claims have been amended by the present preliminary amendment, to place them in better U.S. format and in consideration of the modification in the restriction requirement suggested by the Examiner in the telephone discussion of the Restriction Requirement held on October 11, 2001. It should be recalled that in that telephone conversation, the Examiner said that she would give favorable consideration to examine a single group of claims drawn to the following categories:

(1) a recombinant nucleic acid comprising a nucleic acid encoding a product that induces or stimulates synthesis of branched fatty acid(s), operably linked to a plant-functional promoter (as in claim 12, and dependent claims 13 and 14);

(2) a vector comprising the recombinant nucleic acid (as in claim 17);

(3) a plant cell containing the recombinant nucleic acid or vector (as in claims 18 and 19);

(4) a transgenic plant comprising such a genetically modified plant cell (as in claims 20 and 21);

(5) a process for producing branched fatty acids comprising producing such a transgenic plant (as in claims 1, dependent claims 4, 6, and 7, and claim 23);

(6) the process for producing the branched fatty acids in a transgenic plant, further comprising the step of isolating the branched fatty acids (as in claim 2); and

(7) the process involving co-transfection with a recombinant nucleic acid coding for an S-adenosyl methionine (SAM) synthetase (as in claims 8 and 16).

The Examiner took the position for purposes of restriction that all of the claims should be limited to an embodiment of the invention in which the recited recombinant nucleic acid encodes a single class or type of product that induces or stimulates synthesis of branched fatty acids; i.e., a nucleic acid encoding either:

(a) an enzyme permitting transfer of one or more alkyl groups to a double bond of an unsaturated fatty acid (as in claim 5), or

(b) an enzyme that forces a plant to use a substrate comprising more than 3 carbon atoms for the synthesis of the aliphatic chain (as in claim 9).

For further prosecution of this application, **Applicants elect invention group (a) above**, and have amended herewith the claims accordingly. Applicants reserve their right to file a Divisional application directed to the canceled subject matter. The present amendments are not narrowing amendments relating to patentability.

The amended claims relate to producing branched fatty acids from a plant cell, plant material, or a plant with a recombinant nucleic acid vector encoding an enzyme permitting transfer of one or more alkyl groups to a double bond of an unsaturated fatty acid. Claims directed to the disclosed process for producing branched fatty acids using a transforming nucleic acid encoding an enzyme that forces a plant to use a substrate comprising more than 3 carbon atoms for the synthesis of the aliphatic chain (restriction Groups VI and IX), or to the fatty acid products of the claimed process (restriction Group XIII), **have been canceled.**

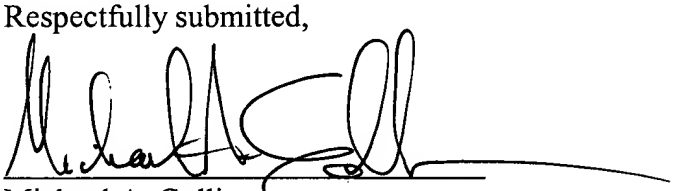
Applicants respectfully submit that the search and examination of the claims as amended can be made without undue burden, since the search conducted for the process recited in the amended claims would also reasonably be expected to embrace the subject matter of the dependent claims drawn to the recombinant nucleic acids and vectors of the claimed process, the transgenic plant cells, plant material, and plants obtained by the claimed process, and extracting the branched fatty acids produced by the claimed process, which all form part of the same inventive concept. Accordingly, Applicants respectfully request that the amended claims be examined as a single group without further restriction. M.P.E.P. § 803.

New claims 30 and 31 do not introduce new matter. Support for new claim 30 is found in the original specification at page 4, lines 16 to 19, at page 15, lines 15 to 17, and in original claim 20, dependent on claim 19. Support for new claim 31 is found in the original specification at page 12, lines 11-17.

From the foregoing, favorable action in the form of a Notice of Allowance is respectfully requested and such action is earnestly solicited. If any questions remain, the Examiner is invited to telephone the undersigned.

Date: December 17, 2001

Respectfully submitted,



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Attachment A - Amended claims, marked up to show changes:

1. (Once Amended) A [Production] process for producing branched fatty acids, [characterized in that] comprising producing said branched fatty acids [are produced] from at least one plant cell or from one plant material or from a plant comprising at least one plant cell, said plant cell comprising in its genome a recombinant nucleic acid coding for an enzyme permitting transfer of one or more alkyl groups to the double bond(s) of an unsaturated fatty acid [a product which induces or stimulates the synthesis of branched fatty acid(s)].

2. (Once Amended) The [Process] process according to Claim 1, [characterized in that it comprises in addition an extraction] further comprising the step of extracting the branched fatty acids.

3. (Once Amended) The [Process] process according to Claim 2, [characterized in that it comprises in addition a treatment] further comprising the step of [the extracted] treating said extracted branched fatty acids.

4. (Twice Amended) The (Process] process according to Claim 1, [characterized in that] wherein the recombinant nucleic acid codes for a product which induces or stimulates the post-synthetic branching of the fatty acids produced by said plant cell.

6. (Once Amended) The [Process] process according to Claim [5] 1, [characterized in that] wherein the recombinant nucleic acid codes for a methyl transferase.

7. (Once Amended) The [Process] process according to Claim [5] 1, [characterized in that] wherein the recombinant nucleic acid codes for a cyclopropane fatty acid synthase.

8. (Twice Amended) The [Process] process according to Claim 4 , [characterized in that] wherein the plant cell comprises in addition a recombinant nucleic acid coding for an S-adenosyl methionine (SAM) synthetase.

12. (Once Amended) A [Recombinant] recombinant nucleic acid [characterized in that it comprises] comprising:

[-]a nucleic acid coding for [a product which induces or stimulates the synthesis of branched fatty acids(s)] an enzyme permitting transfer of one or more alkyl groups to the double bond(s) of an unsaturated fatty acid,

[-]a promoter regulating the expression of said nucleic acid and capable of causing the localized expression of this nucleic acid in certain plant tissues or certain plant parts, and,

[-] a 3' transcription termination region.

13. (Once Amended) The [Nucleic] nucleic acid according to Claim 12, [characterized in that] wherein the promoter is a promoter capable of causing localized expression of the nucleic acid in the seed of a plant.

14. (Once Amended) The [Recombinant] recombinant nucleic acid according to Claim 12, wherein said [comprising:]

[-a] nucleic acid [coding] codes for a methyl transferase [capable of catalyzing the transfer of a methyl group to an aliphatic chain of an unsaturated fatty acid,

- a functional promoter in the plant cells regulating the expression of said nucleic acid, and

- a 3' transcription termination region].

16. (Twice Amended) The [Recombinant] recombinant nucleic acid according to Claim 12, [characterized in that its sequence] wherein said nucleic acid further comprises [in addition] a nucleic acid coding for the SAM synthetase.

17. (Twice Amended) A [Vector] vector comprising a recombinant nucleic acid according to Claim 12.

18. (Twice Amended) A [Plant] plant cell comprising a recombinant nucleic acid [such] as defined in Claim 12.

19. (Once Amended) The [Plant] plant cell according to Claim 18, [characterized in that it] wherein said plant cell is an oleaginous plant cell[, preferably selected from colza, sunflower, peanut, soya, flax and maize].

20. (Twice Amended) A [Transgenic] transgenic plant [characterized in that it contains] comprising at least one cell according to Claim 18.

21. (Twice Amended) A [Transgenic] transgenic plant [characterized in that it contains in] comprising at least in one part [at least] of its cells, a nucleic acid according to Claim 12.

23. (Twice Amended) A [Preparation] process for preparing branched fatty acids from a transgenic plant whose cells contain a recombinant nucleic acid according to Claim 12, [characterized in that it comprises] comprising:

[-the field culture of] culturing said transgenic [plants] plant in a field;

[- the recovery of] recovering the seeds [of said plants] from said transgenic plant; and

[-the extraction of] extracting the branched fatty acids from these seeds.

Attachment B - Substitute Specification

The attached pages are a substitute specification submitted in response to the objection to the specification stated in the Office Action mailed September 17, 2001.